EUWP Disaster Relief Site Visit Report

On September 15, 2005 Major Alan Stocks and Dr Paul Armistead from the Office of Naval Research visited three sites in Mississippi that are being provided water by systems from the EUWP program in support of relief efforts from the effects of Hurricane Katrina. The three sites are downtown Biloxi, Pascagoula ship yard and the shoreline of Waveland. Biloxi has an EUWP Generation 1 being operated by the Bureau of Reclamation (BOR); Pascagoula has another EUWP Generation 1 being operated by personnel from the US Army Tank Automotive Research Development and Engineering Center (TARDEC); and Waveland has the Tactical Water Purification System (TWPS) also being operated by personnel from TARDEC. There is one other water distribution point being supported be a Reverse Osmosis Water Purification Unit (ROWPU) brought and operated by TARDEC near a FEMA distribution site in Waveland.

The BOR EUWP Generation 1 is located at the Biloxi Hard Rock Casino pool area.

The picture on the left is of the source water for the Biloxi EUWP. It is drawn from the pier through PVC piping provided by FEMA and constructed by the National Guard. Original source was from the picture on the right.

Drinking Water is pumped from one 20,000 gallon bladder at the pool area about 5 city blocks to another 20,000 gallon bladder located in the back parking lot of Biloxi Regional Medical Center (BRMC). A cast iron pipe was installed by the City to cross the main road. BRMC is the tan building in the background.

This picture was taken at the back parking lot of the BRMC looking down to the Hard Rock pool area. Again about 5 city blocks. All PVC piping.

The other 20,000 gallon bladder in the BRMC back parking lot. The water tanker in the picture is 1 of about 12 on site before EUWP arrived and started to provide water. The water tankers are remaining on site only as a backup.

The TARDEC EUWP Generation 1 is located at the Pascagoula shipyard. Source water is drawn from pier side. Note ship was not in port at the time picture was taken. It is still undecided if the ship will dock in AL or MS.

The TWPS, left, is providing water to a Trailer Park that is being established by FEMA to house crews for the clean up effort of Waveland, MS. Source water, right, is taken directly from the beach wall.

The water line on the left is what TWPS will tap into to provide water to the trailer park. Picture on the right is an example of the devastation at Waveland.

The EUWP providing water to the BRMC has as of Tuesday last week provided 270,000 gallons of water and the consumption is averaging about 2900 gallons per hour. The Medical Center is claiming that the water EUWP is producing is better than what the City of Biloxi was providing before Katrina. The EPA was scheduled to conduct an inspection the day we were there. Unknown if the inspection took place. Estimated

length of time of use of the EUWP at Biloxi is from 30 to 120 days. BOR has operators signing up for two week shifts.

The EUWP at Pascagoula was put there to provide a water source so the cruise ship can remain pier side for an extended period of time. The cruise ship is capable of making water while out at sea, but pier side is a different story. Rumor on Thursday was that the cruise ship was in port at Mobile empty. Discussions where being conducted to determine the ships final destination. A request for an update has been made. If the ship does not pull into Pascagoula we will look at three courses of action for the Pt Hueneme EUWP, (1) collocate with other EUWP to provide redundancy and allow a more efficient use of limited operators; (2) move to Waveland site and relieve the TWPS to return to TARDEC; (3) Return EUWP to Pt Hueneme and have TARDEC operators rotate shifts with BOR.

The TWPS at Waveland will tap into the existing water line and provide water to a trailer park being established for work crews reside at during clean up efforts. Waveland suffered the worst damaged out of the three sites. Homes where smashed into kindling and pushed inland by a 29' wall of water. All of the trees have turned brown due to being submerged in salt water. Length of time for use of the TWPS is undetermined at this time. TARDEC operators are working on a schedule to support.

The mission will be on its 13 day come Monday the 19th. Communication has been the most difficult aspect of the operation. Members of EUWP who deployed with the systems and the others with the TWPS and ROWPU have done an amazing job in a difficult situation. As the situation changes updates will be provided.